

Shakir

Errors Corrected by the STIC Systems Branch

1632

Serial Number: 09/13, 238B

ENTERED

RECEIVED

TECH CENTER 1800/2000

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically:
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: _____
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: _____
- ☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____
- ☐ Inserted mandatory headings, specifically: _____
- ☒ Corrected an obvious error in the response, specifically:
21507 response
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: _____
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____
- ☐ Other: _____

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/135,238B DATE: 08/07/2000
 TIME: 14:29:43

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\08072000\I135238B.raw

B.S

3 <110> APPLICANT: Nolan, Garry P.
 5 Hitoshi, Yasumichi
 9 <120> TITLE OF INVENTION: TOSO
 13 <130> FILE REFERENCE: A65635-1/DJB/RMS
 17 <140> CURRENT APPLICATION NUMBER: 09/135,238B
 19 <141> CURRENT FILING DATE: 1998-08-17
 23 <150> PRIOR APPLICATION NUMBER: 60/066,063
 25 <151> PRIOR FILING DATE: 1997-11-17
 29 <160> NUMBER OF SEQ ID NOS: 31
 33 <170> SOFTWARE: PatentIn Ver. 2.0
 37 <210> SEQ ID NO: 1
 39 <211> LENGTH: 1910
 41 <212> TYPE: DNA
 43 <213> ORGANISM: Homo sapiens
 47 <400> SEQUENCE: 1
 49 aaaggagtaa gcagcgtgtc tccatcccc tctctagggg ctcttggatg gaccttgca 60
 51 tctagaaggg acaatggact tctggctttg gccactttac ttctgcccag tatcaggggc 120
 53 cctgaggatc ctcccagaag taaaggtaga gggggagctg ggcggatcag ttaccatcaa 180
 55 atgcccactt cctgaaatgc atgtgaggat atatctgtgc cgggagatgg ctggatctgg 240
 57 aacatgtggt accgtgggat ccaccaccaa ctccatcaag gcagaatata agggccgagt 300
 59 tactctgaag caataccccc gcaagaatct gtccctagtg gaggtaacac agctgacaga 360
 61 aagtgcacgc ggagtctatg cctgcggagc gggcatgaac acagaccggg gaaagaccca 420
 63 gaaagtcacc ctgaatgtcc acagtgaata cgagccatca tgggaagagc agccaatgcc 480
 65 tgagactcca aaatggttcc atctgcccta ttgttccag atgcctgcac atgccagttc 540
 67 ttccaaatcc gtaaccagag ttaccacacc agctcaaaag ggcaagggtc ctccagttca 600
 69 ccactctccc ccaccacccc aaatcaccca ccgccctcga gtgtccagag catcttcagt 660
 71 agcagggtgac aagccccgaa ccttctctgc atccactaca gcctcaaaaa tctcagctct 720
 73 ggaggggctg ctcaagcccc agacgcccag ctacaaccac cacaccaggc tgcacaggca 780
 75 gagagcactg gactatggct cactgtctgg gagggaaagg caaggatttc acatcctgat 840
 77 cccgaccatc ctgggctttt tctgtctggc acttctgggg ctggttggtg aaagggccgt 900
 79 tgaagaggag aaagccctct ccaggcgggc ccgcccactg gccgtgagga tgcgcgccct 960
 81 ggagagctcc cagaggcccc gcgggtcgcc gcgaccgcgc tcccaaaaca acatctacag 1020
 83 cgctgccccg cggcgcgctc tggagcggac gctgcaggca caggggaggc ccccgttccc 1080
 85 ggcgccggag cgcgcttgcc ccccgccccg ctgcagggtg ctgaatctcc ctggctccat 1140
 87 gccccatctc tgaagaccag ctgtgaatac gtgagcctct accaccagcc tgcgcgccatg 1200
 89 atggaggaca gtgattcaga tgactacatc aatgttctct cctgacaaact cccagctat 1260
 91 ccccaacccc caggctcgga ctgtgtgtgc aaggagtctc atctatctgc tgatgtccaa 1320
 93 tacctgcttc atgtgttctc agagccctca tcacttccca tgcccatctc cgactcccat 1380
 95 ccccatctat ctgtggccct gagcatggtt ctgccccagc gtcgtcttgc acaccttggc 1440
 97 agccccctgt agttgacagg taagctgtag gcatgtagag caattgtccc aatgccactt 1500
 99 gcttcccttc caagccgtcg aacagactgt gggatttga gagtgttct tccatgtctt 1560
 101 tgaccacagg gtgtgtgttc tgcagggtc tagatcacat ggcacaggc tggggcagag 1620
 103 gcatagctat tgtctcgggc atccttccca gggttgggtc ttacacaaat agaaggctct 1680
 105 tgctctgagt tatgtgacgt gcctcagccc catggactaa gcaggggtct ggtataaaca 1740
 107 ctcttggaac cgcctttgct ctgatccaaa tgttagcact tgctagtga cgtctactta 1800
 109 tctcaagttc tatgctaaag gcaatttatc ttgatgtgat gataaaccaa acttatttag 1860
 111 aagatatgca tatatatcca taaattctct ttactctgtc tccatccttt 1910

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 PATENT APPLICATION: US/09/135,238B TIME: 14:29:43

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\08072000\I135238B.raw

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114 <210> SEQ ID NO: 2
116 <211> LENGTH: 390
118 <212> TYPE: PRT
120 <213> ORGANISM: Homo sapiens
124 <400> SEQUENCE: 2
126 Met Asp Arg Trp Leu Trp Pro Leu Tyr Phe Leu Pro Val Ser Gly Ala
128   1           5           10           15
132 Leu Arg Ile Leu Pro Glu Val Lys Val Glu Gly Glu Leu Gly Gly Ser
134           20           25           30
138 Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
140           35           40           45
144 Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
146           50           55           60
150 Thr Asn Phe Ile Lys Ala Glu Tyr Lys Gly Arg Val Thr Leu Lys Gln
152   65           70           75           80
156 Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
158           85           90           95
162 Ser Asp Ser Gly Val Tyr Ala Cys Gly Ala Gly Met Asn Thr Asp Arg
164           100          105          110
168 Gly Lys Thr Gln Lys Val Thr Leu Asn Val His Ser Glu Tyr Glu Pro
170           115          120          125
174 Ser Trp Glu Glu Gln Pro Met Pro Glu Thr Pro Lys Trp Phe His Leu
176           130          135          140
180 Pro Tyr Leu Phe Gln Met Pro Ala Tyr Ala Ser Ser Ser Lys Phe Val
182 145           150          155          160
186 Thr Arg Val Thr Thr Pro Ala Gln Arg Gly Lys Val Pro Pro Val His
188           165          170          175
192 His Ser Ser Pro Thr Thr Gln Ile Thr His Arg Pro Arg Val Ser Arg
194           180          185          190
198 Ala Ser Ser Val Ala Gly Asp Lys Pro Arg Thr Phe Leu Pro Ser Thr
200           195          200          205
204 Thr Ala Ser Lys Ile Ser Ala Leu Glu Gly Leu Leu Lys Pro Gln Thr
206           210          215          220
210 Pro Ser Tyr Asn His His Thr Arg Leu His Arg Gln Arg Ala Leu Asp
212 225           230          235          240
216 Tyr Gly Ser Gln Ser Gly Arg Glu Gly Gln Gly Phe His Ile Leu Ile
218           245          250          255
222 Pro Thr Ile Leu Gly Leu Phe Leu Leu Ala Leu Leu Gly Leu Val Val
224           260          265          270
228 Lys Arg Ala Val Glu Arg Arg Lys Ala Leu Ser Arg Arg Ala Arg Arg
230           275          280          285
234 Leu Ala Val Arg Met Arg Ala Leu Glu Ser Ser Gln Arg Pro Arg Gly
236           290          295          300
240 Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr Ser Ala Cys Pro Arg
242 305           310          315          320
246 Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly Glu Ala Pro Val Pro
248           325          330          335
252 Gly Pro Gly Ala Pro Leu Pro Pro Ala Pro Leu Gln Val Ser Glu Ser
254           340          345          350

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258 Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Glu Tyr Val Ser
260           355                      360                      365
264 Leu Tyr His Gln Pro Ala Ala Met Met Glu Asp Ser Asp Ser Asp Asp
266           370                      375                      380
270 Tyr Ile Asn Val Pro Ala
272 385                      390
277 <210> SEQ ID NO: 3
279 <211> LENGTH: 84
281 <212> TYPE: PRT
283 <213> ORGANISM: Homo sapiens
287 <220> FEATURE:
289 <221> NAME/KEY: UNSURE
291 <222> LOCATION: (13)..(16)
293 <223> OTHER INFORMATION: The xaa at positions 13 through 16 represents an
295     unknown amino acid.
299 <220> FEATURE:
301 <221> NAME/KEY: UNSURE
303 <222> LOCATION: (44)..(48)
305 <223> OTHER INFORMATION: The xaa at positions 44 through 48 represents an
307     unknown amino acid.
311 <220> FEATURE:
313 <221> NAME/KEY: UNSURE
315 <222> LOCATION: (61)..(62)
317 <223> OTHER INFORMATION: The xaa at positions 61 and 62 represents an
319     unknown amino acid.
323 <400> SEQUENCE: 3
W--> 325 Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Xaa Xaa Xaa Xaa
327     1                      5                      10                      15
331 Arg Ile Tyr Lys Cys Arg Glu Asn Ala Gly Ser Gly Thr Cys Gly Thr
333           20                      25                      30
W--> 337 Val Val Ser Thr Thr Asx Phe Ile Lys Ala Glu Xaa Xaa Xaa Xaa Xaa
339           35                      40                      45
W--> 343 Tyr Lys Gly Arg Val Thr Leu Lys Gln Tyr Pro Arg Xaa Xaa Lys Asn
345           50                      55                      60
349 Leu Phe Leu Val Glu Val Thr Glx Leu Thr Glu Ser Asp Ser Gly Val
351     65                      70                      75                      80
355 Tyr Ala Cys Gly
362 <210> SEQ ID NO: 4
364 <211> LENGTH: 84
366 <212> TYPE: PRT
368 <213> ORGANISM: Homo sapiens
372 <220> FEATURE:
374 <221> NAME/KEY: UNSURE
376 <222> LOCATION: (13)..(14)
378 <223> OTHER INFORMATION: The xaa at positions 13 and 14 represents an
380     unknown amino acid.
384 <220> FEATURE:
386 <221> NAME/KEY: UNSURE
388 <222> LOCATION: (61)..(62)

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 PATENT APPLICATION: US/09/135,238B TIME: 14:29:43

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\08072000\I135238B.raw

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390 <223> OTHER INFORMATION: The xaa at positions 61 and 62 represents an
392 unknown amino acid.
396 <220> FEATURE:
398 <221> NAME/KEY: UNSURE
400 <222> LOCATION: (27)
402 <223> OTHER INFORMATION: The xaa at position 27 represents an unknown amino
404 acid.
408 <400> SEQUENCE: 4
W--> 410 Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Thr Phe Xaa Xaa Ser Asn
412 1 5 10 15
W--> 416 Asp Tyr Tyr Thr Trp Val Arg Gln Pro Pro Xaa Gly Arg Gly Leu Glu
418 20 25 30
422 Trp Ile Gly Tyr Val Phe Tyr His Gly Thr Ser Asp Asp Thr Thr Pro
424 35 40 45
W--> 428 Leu Arg Ser Arg Val Thr Met Leu Val Asp Thr Ser Xaa Xaa Lys Asn
430 50 55 60
434 Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val
436 65 70 75 80
440 Tyr Tyr Cys Ala
447 <210> SEQ ID NO: 5
449 <211> LENGTH: 84
451 <212> TYPE: PRT
453 <213> ORGANISM: Homo sapiens
457 <220> FEATURE:
459 <221> NAME/KEY: UNSURE
461 <222> LOCATION: (13)
463 <223> OTHER INFORMATION: The xaa at position 13 represents an unknown amino
465 acid.
469 <220> FEATURE:
471 <221> NAME/KEY: UNSURE
473 <222> LOCATION: (45)..(50)
475 <223> OTHER INFORMATION: The xaa at positions 45 through 50 represents an
477 unknown amino acid.
481 <220> FEATURE:
483 <221> NAME/KEY: UNSURE
485 <222> LOCATION: (60)..(63)
487 <223> OTHER INFORMATION: The xaa at positions 60 through 63 represents an
489 unknown amino acid.
493 <400> SEQUENCE: 5
W--> 495 Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Xaa Thr Thr Ser
497 1 5 10 15
501 Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Asp His Leu Phe Thr Gly
503 20 25 30
W--> 507 Ile Gly Gly Thr Asn Asn Arg Ala Pro Gly Val Pro Xaa Xaa Xaa Xaa
509 35 40 45
W--> 513 Xaa Xaa Ala Arg Phe Ser Gly Ser Leu Ile Gly Xaa Xaa Xaa Xaa Asn
515 50 55 60
519 Lys Ala Ala Leu Thr Ile Thr Gly Ala Gln Thr Glu Asp Glu Ala Ile
521 65 70 75 80

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RAW SEQUENCE LISTING DATE: 08/07/2000
 PATENT APPLICATION: US/09/135,238B TIME: 14:29:43

Input Set : A:\Pto.amc
 Output Set: N:\CRF3\08072000\I135238B.raw

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525 Met Phe Cys Ala
532 <210> SEQ ID NO: 6
534 <211> LENGTH: 84
536 <212> TYPE: PRT
538 <213> ORGANISM: Homo sapiens
542 <220> FEATURE:
544 <221> NAME/KEY: UNSURE
546 <222> LOCATION: (12)..(15)
548 <223> OTHER INFORMATION: The xaa at positions 12 through 15 represents an
550     unknown amino acid.
554 <220> FEATURE:
556 <221> NAME/KEY: UNSURE
558 <222> LOCATION: (43)..(48)
560 <223> OTHER INFORMATION: The xaa at positions 43 through 48 represents an
562     unknown amino acid.
566 <220> FEATURE:
568 <221> NAME/KEY: UNSURE
570 <222> LOCATION: (61)..(62)
572 <223> OTHER INFORMATION: The xaa at positions 61 through 62 represents an
574     unknown amino acid.
578 <400> SEQUENCE: 6
W--> 580 Thr Ser Leu Asn Cys Thr Phe Ser Asp Ser Ala Xaa Xaa Xaa Xaa Ser
      582   1           5           10           15
      586 Gln Tyr Phe Trp Trp Tyr Arg Gln His Ser Gly Lys Ala Pro Lys Ala
      588           20           25           30
W--> 592 Leu Met Ser Ile Phe Ser Asn Gly Glu Lys Xaa Xaa Xaa Xaa Xaa Xaa
      594           35           40           45
W--> 598 Glu Glu Gly Arg Phe Thr Ile His Leu Asn Lys Ala Xaa Xaa Ser Leu
      600   50           55           60
      604 His Phe Ser Leu His Ile Arg Asp Ser Gln Pro Ser Asp Ser Ala Leu
      606   65           70           75           80
      610 Tyr Leu Cys Ala
      617 <210> SEQ ID NO: 7
      619 <211> LENGTH: 84
      621 <212> TYPE: PRT
      623 <213> ORGANISM: Homo sapiens
      627 <220> FEATURE:
      629 <221> NAME/KEY: UNSURE
      631 <222> LOCATION: (11)..(14)
      633 <223> OTHER INFORMATION: The xaa at positions 11 through 14 represents an
      635     unknown amino acid.
      639 <220> FEATURE:
      641 <221> NAME/KEY: UNSURE
      643 <222> LOCATION: (18)
      645 <223> OTHER INFORMATION: The xaa at position 18 represents an unknown amino
      647     acid.
      651 <220> FEATURE:
      653 <221> NAME/KEY: UNSURE
      655 <222> LOCATION: (28)

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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/135,238B

DATE: 08/07/2000
TIME: 14:29:44

Input Set : A:\Pto.amc
Output Set: N:\CRF3\08072000\I135238B.raw

L:325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:416 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:507 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:798 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:804 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:950 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:1167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:1259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:1265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13